Connecticut Industry

September

1929

In This Issue

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By Arthur P. Hickox

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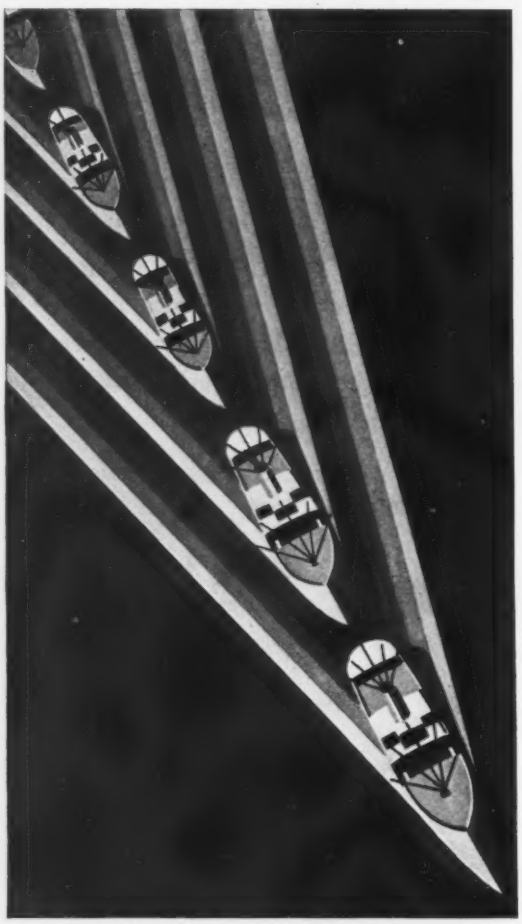

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CONNECTICUT CAN CARE FOR HER OWN

In the late afternoon of August 1 parts of the Connecticut Valley were visited by a forceful demonstration of how wrathful the elements can be. Hail fell with the play of drum fire and with an effect on the tobacco fields that was hardly less devastating. The promising crops of many farms were transformed in the course of a few minutes into growths that were not worth the cost of harvesting.

The plight of the stricken tobacco farmer becomes more than an individual problem in some cases. It may be a social or a community problem. Conceivably, it may be a problem requiring public aid. But severe as it is, it hardly justifies the sudden rush to Washington for aid.

Federal aid and federal encroachment on state autonomy are closely linked together. Seeking or accepting the former invites the latter. The iniquitous " dollar for dollar " bribe has blunted the sense of independent statehood in many parts of the country. Connecticut has clung to her sovereignity and her independence with greater tenacity than most of her sisters. It is late in the day to relax.

Connecticut is able to care for her own. Let us not abandon the example we have set up for years. Local self government is too precious a thing to sacrifice for temporary succor.

The Effect of Ultraviolet Rays on the Health of Workers

GLASS is perhaps the most essential of all building materials. During hundreds of years it has been used universally for windows to admit light and keep out wind and weather, and in such climates as ours has therefore been almost vital to the development of civilization.

Until the last few years all efforts in the manufacture of ordinary window glass have been devoted to the production at the least possible cost of large sheets without flaw or blemish, free from visible color, and resistant to the weather. In the middle ages it was only possible to obtain pieces of glass a few inches in area, of a greenish color and full of defects which distorted vision; now, however, it is possible to produce sheets hundreds of times larger in area, almost colorless, of perfect surface and free from visible defect.

Whilst different compositions of glass have been developed for the manufacture of colored glass for ornamental purposes, glass of great brilliancy for tableware, glass with special chemical and physical resistance for laboratory workers and illuminating engineers, and glasses of very varied compositions to meet the exacting demands of optical instrument makers, the composition of window glass has only been varied in order to make its visible properties as perfect as possible.

Modern medical research has, however, brought to light a very important defect of ordinary glass from the health standpoint, for it has been proved to be opaque to the most beneficial rays of the sun. In order to remedy this fault the lecturer made investigations in 1924 with the object of producing a new window glass having special transparency to the health-giving ultraviolet rays.

The scientific research involved was carried out with much encouragement from Professor Leonard Hill, and also from the authorities of the London Zoological Gardens, Dr. Saleeby and others, and early in 1925 the first full scale melting was made of window glass (designated "Vita") pervious to the health rays.

In order to describe more fully the special property of the glass it is necessary to touch on the physical aspect of the position. Heat, light and sound are effects which are observable at a distance from the source of energy, this energy being conveyed by wave motion in an intervening medium, and the wave-length determines the nature of the energy. Thus when air is pulsating with a wave-length of a few feet the ear can be in tune and give the sensation of sound, the pitch of the note being determined by the wave-length.

In the case of light, however, we are dealing with waves in the medium which also conveys X-rays, ultraviolet and infra-red radiations and the electrical vibrations which are used as "carriers" in wireless telephony and teleg-

Can the physicists tell us:

1. Whether ultraviolet rays are practically excluded by the common type of glass?

2. Whether "Vita Glass" allows a high or a small percentage of these rays to penetrate to interior areas which are illuminated by "Vita Glass?"

3. Whether the presence of ultraviolet rays in interiors would have an appreciable effect upon the continuance of good health and working ability on the part of employes engaged in such interiors.

In the January, 1929, issue of *Connecticut Industry*, there appeared the replies of four eminent American scientists to these questions propounded by a member of the Association's Research Committee, Mr. Howell Cheney of Cheney Brothers. The consensus was that the beneficial effect of ultraviolet rays on industrial workers was negligible.

As if in rebuttal, Mr. F. E. Lamplough, Late Fellow of Trinity College, Cambridge, read the accompanying paper on "The Properties and Applications of 'Vita' Glass" to the Fellows of the Royal Society of Arts in London at their April meeting.

raphy, all traveling with the same velocity, 186,000 miles per second.

Wireless broadcasting stations use giant waves of hundreds of metres from crest to crest, but the wave-lengths of visible light are very minute and the tiny ripples of green light Our eyes can, however, tune to the tiny ripples of about the dimensions indicated and so detect them by giving us the sensation of light.

Newton demonstrated by the use of a prism the splitting up of white light into a band of colors or spectrum, varying from violet to red.

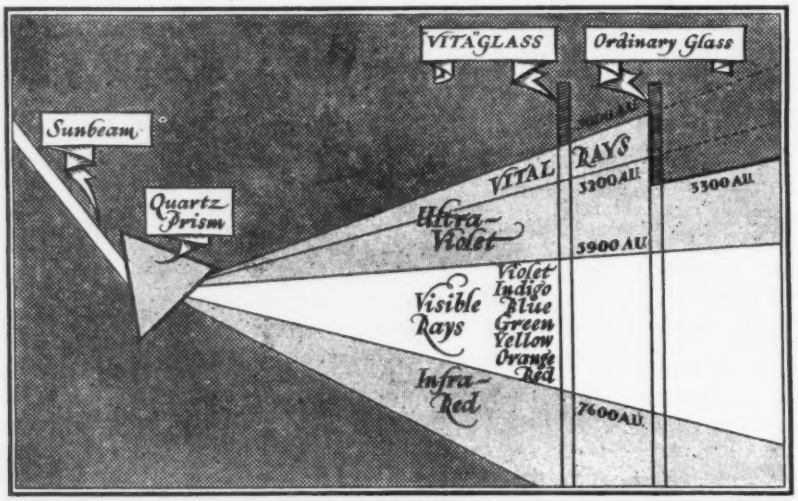


FIGURE 1

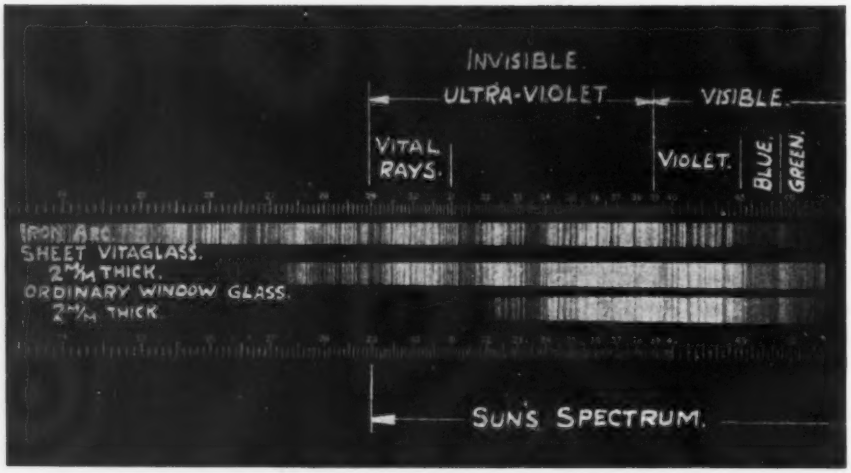


FIGURE 2

have a wave-length of but one fifty-thousandth of an inch or thereabouts. Expressed in terms of the usual "Angstrom Unit" (one ten-millionth of a millimetre), green light would be said to have a wave-length of about 5,000 A. U.

To detect wireless waves more or less elaborate apparatus is necessary which may be tuned to unison with these waves and so absorb them. The extreme red waves have a wave-length of about 7,600 and the extreme violet 3,900, and the eye is sensitive to all intermediate wave-lengths and distinguishes them by color discrimination.

Beyond each end of the visible spectrum range of colors there are in the radiation from the sun rays which can only be detected by

highly scientific means other than sight.

The rays beyond the red, i. e., the infra-red rays, give the sensation of heat and are usually detected and measured by their thermal effects. Beyond the violet end the rays have very slight heating power and are frequently detected by photography.

A body heated to 500°C. emits radiation entirely in the infra-red. At higher temperatures the body begins to glow and its radiation comes within the red end of the spectrum so that the body appears red hot. As the temperature is raised the radiation shifts more and more toward the violet end of the spectrum as the blow becomes more yellow and eventually a white heat is reached. Some stars, still hotter than the sun, are at an intense bluish heat.

The sun's radiation corresponds to that of a body incandescent at about 6,000°C., and its maximum intensity is in the visible spectrum, the strength falling off in the infra-red, and rapidly in the ultraviolet region.

Ultraviolet rays of very short wave-length are harmful to the eyes and skin, but we are protected from these by the atmosphere, particularly by the ozone in the upper layers, and the limit of the ultraviolet rays which reach the earth's surface is rarely below wave-length 3,000.

It is now generally recognized that the radiation which has special biological value extends from wave-length about 3,200 A. U. downwards. It will therefore be seen that the beneficial *natural* ultraviolet rays which we experience in our climate are for the most part included in the wave-length range from 3,000 to 3,200 A. U.

Ordinary glass is practically opaque to rays below 3,300 and therefore obstructs the beneficial rays. The new glass transmits radiation well below wave-length 3,000.

Fig. 1 shows diagramatically the splitting of a beam of sunlight by a prism and indicates how the beneficial rays are transmitted by a sheet of the new glass, but are obstructed when they meet a sheet of ordinary glass. In Fig. 2 the actual spectrum photograph is given showing that " Vita " glass transmits the health rays which are obstructed by ordinary glass.

Finsen was the first to discover the healing qualities of sunlight by actual scientific experiment During these experiments he found that ordinary glass was opaque to the therapeutic or ultraviolet rays of the sun.

In the photograph the range from 2,900 to 3,100 has been marked as comprising the beneficial rays, but the range from 3,000 to 3,200 would be more correct. For the purpose of the photographic test an iron arc has been used to produce the ultraviolet radiation.

The permeability of the new glass to the " vital " rays which are so valuable to life may be shown in various other ways. These rays cause sunburn and pigmentation or bronzing of the skin, and the effect frequently is nearly as marked when Vita glass is used to screen the sun as without the screen. Ordinary glass, unless very thin, practically prevents this action.

The fading of a special blue dye has been used by Professor Leonard Hill to measure the amount of valuable rays transmitted by the glass, and has shown that certain small organisms — infusoria — are killed by these rays after passage through " Vita " glass, but are completely protected by ordinary glass.

The best visible demonstration is given by the use of fluorescent substances such as uranium glass, or various dyes, which have the property of glowing in ultraviolet rays. In making the experiment the beam from a mercury vapour lamp is filtered by a film of silver deposited on quartz or thin " Vita " glass, so that rays chiefly of wave-length 3,130 are isolated and produce the glow of fluorescence. The interposition of a sheet of " Vita " glass only slightly reduces this effect, but a sheet of ordinary glass practically extinguishes it. A photographic printing test may also be used with the same arrangement.

In ancient Egypt the sun-god Ammon-ra was paramount. The Greeks practised heliotherapy. Roman villas were in many cases equipped with solaria or sun rooms, and a face well bronzed by the sun has always been associated with an appearance of health. It was not, however, till the last decade of the nineteenth century that the earliest careful scientific work was carried out by Finsen on the use of sunlight as a healing agent, and on the artificial production of radiation of similar properties. Finsen soon realized that ordinary glass de-

stroyed the special therapeutic property of the rays, and in his apparatus he made use of lenses of quartz which freely transmits ultraviolet radiation.

The first two or three years of the present century saw the establishment of a sun clinic by Dr. Bernhard at St. Moritz, in the Alps, where patients lay exposed without clothing to the outside sunlight. The value of this pioneer work was at once recognized by Dr. Rollier, who in 1903 set up at Leysin the first of the famous establishments which have made his name well known throughout the world, and played a considerable part in establishing the importance of outdoor sunlight in the cure of various forms of surgical tuberculosis and other diseases. Similar work has also been carried out in this country with great success by Sir Henry Gauvain and other workers.

The Council of Physical Therapy of the American Medical Association carried out tests with baby chicks which unquestionably proved the value of the ultraviolet ray to the health of fowls.

The use of ultraviolet rays in the prevention and cure of disease forms a new branch of medical science to which attention has been given throughout the world, and the importance of these rays in furthering the general health and well-being of mankind is practically universally recognized.

Whilst intensive bare body treatment is necessary to effect the cure of serious diseases, comparatively short exposures of small areas of the surface of the body are sufficient to have valuable effects.

Rickets and surgical tuberculosis are two of the most important diseases for which exposure to the sunlight is the best possible remedy. Imperfect bone formation in children which characterizes the very wide spread disease of rickets is due to unsuitable food and lack of sunlight, which gives the body power to absorb the bone-building elements, calcium and phosphorus. From tests in Manchester, Dr. Leonard Hill states that " even the small amount of light in a smoky city suffices for the clothed child if out of doors all day."

If food is deficient in vitamin D, sunlight will make good this deficiency by producing this vitamin in the surface layers of the skin. It has, however, been amply proved that ordinary window glass removes from sunlight the rays which have this preventive or anti-rachitic effect.

Shortly after the introduction of the " new " glass it was proved experimentally by Dr. Leonard Hill in the case of mice fed on diet deficient in vitamin D that the glass allowed the passage of the rays from a mercury vapor lamp which prevented rickets, whilst ordinary glass obstructed the beneficial rays.

In America careful tests were carried out at Boston in January and early February, 1927, by the Council of Physical Therapy of the American Medical Association. In this research different groups of young chicks fed on defective diet were kept in separate compartments facing south and received light as follows:

(1) Sunlight through ordinary glass.

(2) Diffuse light of laboratory through ordinary glass.

(3) Sunlight through " Vita " glass.

The chicks were weighed at the commencement, 21 days after hatching, and at intervals throughout the test, the development of " leg weakness " being shown by appearance and by X-ray diagnosis.

It was found that all the chicks of groups (1) and (2) developed rickets, and after 40 days the weight had increased 2.39 and 2.43 times respectively. In other words, so completely were the anti-rachitic rays excluded by the ordinary glass that bright sunlight received through it was just as ineffective in preventing rickets as the weak diffused light of the laboratory.

On the other hand, out of 14 chicks of group (3) only two showed any trace of rickets, and the weight increase was more than double that of the other groups.

The results of the above experiment, carried out in *winter,* have been widely confirmed by the experiences of poultry farmers in the use of the glass. Similar tests have been carried out in the case of rats exposed to light from the north sky through ordinary glass and through the special glass, and these have proved the presence of the anti-rachitic rays in the light from the north sky.

In Kashmir the Purdah system is the cause of a bone disease akin to rickets. From the age of eight, girls of the higher classes are shut away from the sight of men in rooms in which oiled paper is often used to obscure the windows. In the absence of ultraviolet rays a de-

ficiency of calcium occurs which in the case of expectant mothers becomes so accentuated by the drain on the calcium of the system that softening of the bones and curvature of the limbs result. Women of the lower classes working in the open sunlight, but with much inferior food, are in perfect health.

Dr. Kathleen Vaughan, who has spent much time in investigating this disease, states " the observed facts convince me that want of light is the essential cause," and, again, " I have not seen much benefit from cod liver oil unless light is allowed."

The inhabitants of the Faroe Islands and of Iceland live on similar food, which includes much cod liver, yet rickets is prevalent among the former and absent from the latter. It is significant that the Faroes experience dense mists of long duration, which make the climate far less sunny than that of Iceland.

Contrary to average opinion the clear skyshine is just as rich in ultraviolet health giving rays as the direct sunshine from a clear sky.

Ultraviolet radiation not only assists the formation of sound bone and teeth, but also increases the bacterial power of the blood, thus helping it to resist infection. It has recently been said that a mustard plaster will produce as much increase in the bactericidal power of the blood as a treatment with ultraviolet rays. As, however, it would be necessary for the plaster to have an area equal to one-sixth of the whole body, and for it to remain two hours in contact with the skin, it is hardly likely that any would wish to repeat the dose.

Dr. Leonard Hill has indicated in his recent book, " Common Colds," that the healthiest condition would be achieved if we could live in direct sunlight with scanty clothing, the feet being kept warm and the upper part of the body cooled by outdoor breezes. Whilst, however, outdoor sunlight is ideal under reasonable climatic conditions, modern like prevents the majority of us from enjoying this.

Office work must be carried on under conditions in which there is a protection from wind and weather, and even in the case of schools it is desirable at least to provide roofs to protect the children from the rain. " Vita " glass therefore comes to our aid in helping to give us the next best thing to direct outdoor sunlight, and makes it possible for us to have windows which at any rate will not remove the most beneficial part of natural light. The special property of the glass should never be used as an excuse for keeping windows shut when they might well be opened to admit both air and sun. In fact may successful installations with sliding roofs or windows give the fullest access to open air. The glass has already been adopted in over 180 hospitals in this country, being used particularly for roofing open-air wards and for sun lounges, etc. This glass is exclusively a British product, and it is interesting to note that its use is also extending rapidly in the United States.

Much more extensive is its use in factories, offices and private houses, where it is the means of giving some of the benefits of outdoor sunlight to those who otherwise during the greater part of the year would have little opportunity of exposure to the beneficial rays.

It is frequently supposed that direct sunlight alone contains the natural health rays and can give benefit. This is not the case, however, for the light derived from the clear sky is rich in the ultraviolet rays. The blue skyshine of the unclouded sky is due to the " scattering " of the sun's rays by particles in the atmosphere which are small compared with the wave length of light. This " scattering " is much stronger in the case of the short ultraviolet waves than of the longer visible waves and, when the sun is shining in a clear sky, a horizontal surface receives considerably less ultraviolet radiation from the direct sunshine than from the whole of the sky minus the sun. As the skyshine is much cooler than the sunshine heliotherapy can be practised by exposure to north sky in cases where it is important that there should be no subjection to heat.

This fact therefore indicates that the use of the new glass need not be confined to the parts of a house of more or less southerly aspect, though undoubtedly of greatest value in such positions. It is, however, important when the glass is used in windows facing north that these should be large, and it is desirable to be near to the windows so that light from a large area of sky may be received. In the case of rooms where the natural light is weak, the glass can-

not have any valuable beneficial effect.

When "Vita" glass is first exposed to sun there is a small initial loss of transparency to ultraviolet radiation, but after about a month, a steady state is reached, and there is no further loss of permeability. In most of the numerous tests which have given such good results, the glass was installed for some time before trials could be carried out, and therefore this initial deterioration had already taken effect and the glass would not deteriorate further with lapse of time.

The idea that glass having special transparency to ultraviolet radiation must be kept scrupulously free from dirt by frequent cleaning has by some means obtained wide credence. It is certainly desirable that the glass should not become begrimed with a deposit of soot, as this not only obstructs visible light but also the ultraviolet rays to a rather greater extent. It is not necessary, however, that more than ordinary precaution as regards cleaning should be taken in the case of vertical panes, and even in the case of roofs, though occasional washing is desirable, an important beneficial effect will still be secured if, as at the Zoological Gardens, no steps are taken to clean the glass.

Very frequently the questions are asked what is the transmission or efficiency of the glass and what is its price?

The efficiency figure of the glass depends on many factors, one at least of which cannot be determined with exactitude. These include (a) the relative beneficial effect of rays of equal intensity but of different wave-length, (b) the intensities of the different wave-lengths present in the particular incident light, (c) the transmission of the glass for rays of different wave-length.

The first of these factors itself probably depends on the use to which the glass is put, e. g., prevention of rickets, etc. However, it is necessary to give some rough estimate, and we shall probably not be very far out if we take as our measure of the efficiency of the glass for transmititng natural ultraviolet health rays, the percentage transmission at wave-length 3,130 (this being convenient for measurement with a mercury vapor lamp).

The glass, recently improved as regards transmission and resistance to deterioration, after reaching a permanent condition transmits in 2 m/m thickness about 65% at 3,130, which may be taken at its approximate efficiency figure. Of the 35% diminuation, 8% of the original intensity is lost simply by reflection at the two glass air surfaces and the rest by absorption.

As regards cost, it may be said that at a rough estimate, if the extra cost of a fair-sized window of "Vita" glass were spread over 20 years, it would work out at about one penny per month, or one halfpenny per week would pay for a large bay window. In new buildings the extra cost of the glass is unlikely to exceed one per cent. of that of the whole structure.

The least benefit to health to any member of the family would be cheap at this price, and it must be remembered that the benefit is received with nothing to swallow, no time to be wasted, no trouble, further expense or interference with one's ordinary life. Yet a man in an office sitting bareheaded near a window of favorable aspect may receive spread over the whole year ultraviolet radiation equivalent to that received during many weeks or even months of holiday.

Transparency to ultraviolet radiation is not the only property of importance in glass of this kind. The glass must retain this transparency without important loss of exposure to sunlight, and it must be resistant to atmosphere attack. In addition, glass which is used for living rooms must be as free as possible from visible defects which would distort vision. It is possible to product a glass of transparency to ultraviolet far beyond the limits of the sun's spectrum, but the surface of such glass becomes corroded by damp, and the material is therefore quite unsuited for windows though useful in special optical instruments.

In view of the fact that all the necessary qualities are now combined in the glass, the time may be envisaged when at least the sunny windows of all rooms, offices, and factories where people live and work will be fitted with glass which does not obstruct the most healthful rays of the sun.

Export Managers should be present at the Association's Annual Meeting on October 9. Department of Commerce experts will assist in the solution of your export problems.

A scene from "The Nation's Market Place," showing how business is transacted on the N. Y. Stock Exchange

Seeing is Believing

By PERRY ARNOLD

General Sales Manager, Visugraphic Pictures Inc., N. Y.

IN presenting the case of the motion picture as the logical medium of thought and expression, particularly in its application to the many merchandising problems which confront manufacturers and industrialists, there are two salient facts to be considered.

These are:

(a) The standard of excellence achieved in modern motion picture production commends the film to every branch of industry, science, art and education as the most natural channel of expression.

(b) The motion picture is the only channel through which the millions of human beings inhabiting the globe can be reached — at any time, in any place, and in an universal language.

The largest and most influential corporations in the world have tested and approved the motion picture as the most modern method of exploiting manufacturing and industrial effort. The picturized message provides a permanent, living advertisement; expression is tangible and definite.

There is, of course, a type of motion picture to fit the requirements of any branch of industry or manufacturing effort. For example, a motion picture made especially to reach consumers would tell the story of a product, its qualities and processes of manufacture. Such a picture would emphasize material and workmanship, ideal manufacturing conditions, popular usage and demand. Its specific purpose would be to reach the greatest number of consumers — to spread the gospel of that particular product with a view to increasing the demand for, and the sale of, the goods.

In such a case, the scenario must be written to insure wide distribution for the picture.

Distribution, both theatrical and non-theatrical, is based entirely on the quality of the picture. Naturally an out-and-out advertising picture would not enjoy the distribution that a motion picture prepared expressly for theatrical distribution would. It depends on the scenario. A product may be advertised in so subtle a manner — camouflaged, as it were, in a motion picture story abounding in action and audience interest — that theatrical distribution is assured.

To make possible the widest exhibition of a film in the theatrical and non-theatrical markets, the picture must contain that indefinable, elusive quality that will hold the full attention of the audience.

Let me quote at this point an excerpt from an article in a recent issue of the *Scientific American,* captioned; "Putting It Over With 'Movies'." The value of audience interest is stressed as follows:

"Busy executives, street loiterers, housewives and casual theatregoers are now finding themselves recipients of the attentions of advertising men and manufacturers who "put over" their message in an unusually pleasant form.

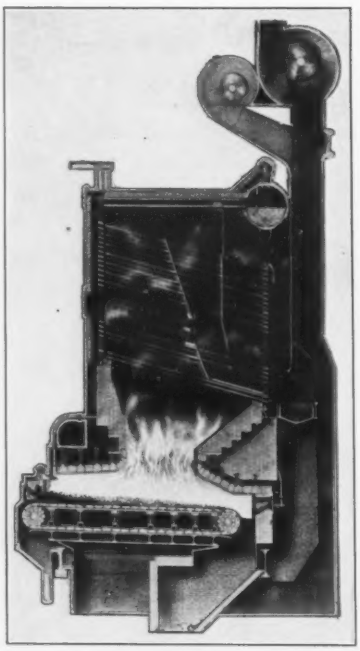
"Most people consider the 'movies' as a rather pleasant diversion. This fact, aided by the rapid development of portable projectors, daylight screens and a wide variety of well-filmed industrial motion pictures, has created a new era in advertising.

"The public is now being entertained with the carefully prepared creations of enterprising business and industrial leaders.

"Broadway's most regal motion picture palaces recently have presented some outstanding pictures of this type, including motion pictures for the New York Stock Exchange, the Radio Corporation of America, the New York Edison Company and other prominent firms.

"What is good enough for Broadway is good enough for Main Street, and most of the theatre-goers of the nation eventually will see these, and similar pictures, in their own local motion picture theatres.

"There is a potential market of tremendous value for well produced industrial 'movies,' especially if there is unusual educational value to the films."



Animated drawing used in industrial films to show passage of steam through boiler. This is "shot" from a film, "Steam" telling the story of this product.

So the motion picture story of a product, properly directed and expertly photographed, will — in fact — reach millions of consumers and prospective consumers.

But there is another specific type of motion picture which is, perhaps, the most valuable aid in merchandising. This is the "dealer picture," a motion picture made to sell the sales force.

There is no more potent factor contributing to the successful merchandising of any product than the cooperative and co-ordinated effort of dealers, jobbers and salesmen to push the product. It is not enough that the factory turns out a good product, that the advertising agency turns out good copy. The massed effort of the selling force is needed to put that product over properly.

In such cases, the "dealer picture" is indispensable. It employs the best merchandising and advertising practices to tell — dramatically and forcefully — the story of a product.

Such a picture enables dealers, jobbers and salesmen to visualize the service that stands behind them and teaches them how to capitalize that service to the best sales advantage. The "dealer picture" goes further; it instructs the field and sales forces and local dealers in the most efficient and fruitful way of tying up with the national advertising effort.

In recent months a new element — that of sound — has come into the field. It requires little imagination on anyone's part to picture the value of a "sound dealer picture," — a picture that will take a combined spoken and pictorial message to dealers and jobbers anywhere.

The "dealer picture" is employed by many of our leading manufacturing concerns with very great success. Some of these are the Fisk Rubber Company, the Radio Corporation of

America, the Goodyear Tire and Rubber Company and several anthracite corporations.

The R. C. A. film; "Links," for example, is described as an "entertaining dramatization of how dealers can increase sales of RCA products." The description continues:

"'Links' tells a definite story. It shows how a typical American family responds to RCA national and local advertising; how a progressive radio dealer ultilizes that advertising; the steps in his successful selling of a Radiola; how one satisfied customer leads to further sales.

"'Links' shows the RCA dealer, in the clearest and most concise way known, the sales methods calculated to bring the greatest amount of business into the retailer's store."

Digressing for the moment, let me go back to the question of theatrical distribution. Another RCA film was "Man-made Miracles," telling the story of the radio tube. This picture was shown at Roxy's Theatre in New York, and the theatre management, commenting on the picture, wrote: —

"It is a film of special interest and educational value to the average individual."

"Man-made Miracles," a picture showing how radio tubes are made. This picture had a wide theatrical distribution. Every step in the manufacture of the tube was shown. Above view was a scene taken from this film.

In other words — a picture properly produced finds a definite market and brings definite results.

The sound industrial picture is the symbol of modernism. Practically all of our best motion picture theatres from coast to coast now are equipped for sound, and even the smaller houses have some form of sound apparatus. Adveristing and industrial motion pictures now are made in both sound and silent types and the latest innovation in this regard is a portable sound projector which can be carried anywhere with ease. Armed with this equipment, a salesman can put on a sound picture of a product in his prospect's office.

Another classification of the industrial motion picture is the technical film. Motion pictures of this type appeal to research associations, engineers, technicians, skilled labor and institutes of technology. By the use of animated drawings and miscroscopic photography, the most intricate and involved processes of manufacture are shown clearly. Technical facts are simplified for the layman.

For the individual salesman, the portable projector is the last word in salesmanship. An up-to-date salesman, equipped with industrial films, a portable projector weighing only 7½ pounds (the portable sound apparatus is slightly heavier) and an inbuilt screen can demonstrate his wares on the mahogany desk in his prospective customer's office.

The salesman of old was burdened with a mass of literature and samples. The illustrated catalogue was his text-book.

The modern salesman is a "Seeing is Believing" man. With the action film record of his product, and his portable but thoroughly practical projector, this salesman can present a vizualized sales argument — quickly and intelligently. He can show every point.

The road to merchandising success is not an easy one but the motion picture smooths out many of the bumps. It reaches everywhere with its message and has the advantage of being on the job when wanted. The motion picture message is driven home in an entertaining way and it records its impressions direct.

"Seeing is Believing" is not a new axiom but it is peculiarly applicable to the modern trend in business thought and achievement.

Invite your Sales Managers to the Annual Meeting where they may consult with Foreign Trade Sales Experts on special problems.

The factory and office of the United States Aluminum Company at Fairfield, Conn. Note the aluminum fence, sign and pillar ornaments in the factory view.

A Trip Through the United States Aluminum Plant

By L. M. Bingham

FORCED, on account of increased business to abandon their former plant in Fairfield, the United States Aluminum Company built a new and larger one of modern straight line construction on the opposite side of the street. Construction on the new plant was started August 14, 1928; the first casting poured December 17, 1928, and the plant completely occupied on June 15, 1929. It is now looked upon as a model in foundry construction, foundry practice and idealistic working conditions surrounding the efforts of four hundred and eighty men employed there.

A group of twenty-five trade paper editors were the exclusive guests of the company on August 8th. After surveying the office building, built of Old Connecticut Brick, and flanked on either side by wing walls in which were inserted cast aluminum signs, the name of the company and its subsidiary, the group entered a large well-lighted office where samples of aluminum castings and photographs of the plant were on display. This imposing arrangement of interior and exterior views of the factory, together with the many samples of aluminum cast in the form of plaques, ash trays, decorative pieces and interior molding served as a timely introduction to a business with which only a few of the visitors were acquainted.

During the luncheon period, Mr. J. F. Becker, Production Manager of the plant, informed the group of the recent trends of industry toward increased usage of aluminum alloys. "The facts are," he said, "that castings are no longer considered because of their lightness, but are being utilized because they combine lightness with high tensile strength and other physical properties heretofore possessed by iron and steel castings only. The Aluminum Company of America, foreseeing the demands made upon them in the East for the alloys developed by their engineers, built this new plant which was so designed to produce these alloys under the most economical and scientific conditions. Last year the Fairfield Foundry produced castings from 4200 patterns for 480 customers and all by the sand casting process. Each type of casting usually requires special treatment in the heating, molding, or curing processes. In all of these processes, absolute heat control is the most vital factor in the success of the finished product." At this point the party was divided into five small groups for a tour through the factory, each group headed by an executive of the company thoroughly familiar with all of the processes.

While passing from the office to the Pattern Vault, attention was called to the aluminum staircase, lighting fixtures, locks, office furniture, aluminum painted walls, and aluminum fence in front of the factory and office; all of which, at first glance seemed like extravagance, but was quickly shown to be the opposite, since an alloy resistent to corrosion had been employed to make this construction practically everlasting. The Pattern Vault occupied a building 35′ x 80′ of fire-proof construction, so arranged that the temperature is controlled at all times to keep the thousands of patterns, stored on metal floors and racks, under the most ideal conditions. In the Carpenter and Maintenance Building, adjoining the Pattern Vault, flasks were being made and equipment and patterns maintained.

The party now entered the Power House where the latest type oil burning boilers generate the steam for ageing the castings, heating the buildings and other mechanical purposes. The blowers, air compressors, oil and water pumps were also located in this room.

Members of the party had marveled at the cleanliness and order in the buildings thus far visited, but expressed even more surprise when entering the Foundry Melting Room to find the floors clean and in good order, — the exact opposite of many foundries. Almost the entire end of this large room 190′ long and 70′ wide was opened up by means of rolling doors in order to give the furnace operators the best working conditions. A pyrometer was attached to each furnace, and on the west side of the room was a large control booth where two men kept a constant check on the temperature of the metal in the furnaces to see that it was not overheated, and also coincided with the temperatures established by the planning engineers.

A large open doorway marked the entrance to the Bench and Floor Molding Rooms which were 60′ x 150′ and 95′ x 250′ respectively. The Floor Molding Department was of monitor type roof construction with glass sides in the monitors and side walks, and was served by three cranes varying from one to five tons capacity. Not one dark corner was found anywhere. The men working in this environment of light and ample ventilation reflected a feeling of satisfaction and contentment rarely seen in the average dark and dismal foundry.

The bench machines in the Bench Molding Room were backed up against a low concrete wall, being separated by other low walls, and topped by 12″ steel channels which made an unusually clean lay-out. Pyrometers and technical assistants were stationed all along the production line to make certain that pouring temperatures were scientifically accurate and that the speed of pouring, — which is of great importance in the manufacture of aluminum castings, — was correct. Along the walls on one side of the Bench Foundry were concrete bins where both molding and core sand is received from the cars on the company's private siding, and delivered by electric truck to the molding floor.

The Core Room, next adjacent to both the Bench and Floor Molding Rooms, was 110′ x 150′. Here were found the most modern core making machinery and a battery of oil fuel two-rack ovens and one smaller tray oven — all equipped with pyrometers to keep an accurate check on the oven temperatures. Many castings, on account of their intricate shape, were being made entirely in dry sand molds. Among those requiring this process were the cylinder head castings of the Pratt & Whitney "Wasp" and "Hornet" motors. All metal is transferred from the Melting Room to the electric holding furnaces in the Core Room at the lowest temperature possible, and then brought up to pouring heat in order to avoid soaking at elevated temperatures.

Again entering the foundry where the straight line path of production was most pronounced as the feature of the whole lay-out, they came to the Knockout Room where the core and sand wires were being removed from the castings. The Cleaning Room was next in the production line, where in addition to similar equipment used in other establishments, there were rows of benches where rotary files were used on the rough castings before the sand blasting operation.

Only a few feet to the right was the Inspection Room which was equipped with benches, gas pressure testing tanks, accurate lay-out tables, and all of the other fine tools for close inspection work. Overhead was a monorail running along one side of the room where the castings requiring special heat treatment were placed in baskets directly underneath. A traveling crane moved these baskets to the Heat Treating Room where they were placed in electric heat treating furnaces, and held to within one or two degrees of the desired temperature by means of pyrometric control. Steam ageing and quenching tanks were also used in connec-

(Continued on page 18)

Modern Industrial Purchasing

By ARTHUR P. HICKOX,
Purchasing Agent of the Scovill Manufacturing Co., Waterbury, Conn.

The importance of "turn overs" was first stressed in the latter part of 1920 and the first part of 1921. Now good purchasing practice demands an ever increasing turn over, consistent with the business at hand.

NEARLY 20 years experience in the purchasing office of a large manufacturing concern ought to qualify any man of sufficient intelligence to hold down a responsible position in a purchasing office to discuss modern trends in industrial purchasing, and yet with that background I approach the subject with considerable hesitation.

Common sense has always played a big part in buying as I have known it. It has been our constant thought to get the most out of our money and although before the war we did not talk about " turn overs," standardization, chemical and physical characteristics, reciprocity buying and the benefits of getting sources of supply near at hand as much as we do today, we, nevertheless, tried to find out what was wanted. We scheduled delivery to assure a sufficient stock on hand when needed, and paid no more than we believed was necessary.

Even during the war when abnormal conditions prevailed, the same general program was carried out. In those days, however, quick delivery seemed frequently to be the most important part of purchasing and right quality was sometimes prayed for rather than expected. The price then was frequently considered of less importance than either before the war period or since.

For nearly two years following the war, purchasing, in my opinion, was done with less sense than at any other time covering the last two decades. We had bought so much that late in 1920 too many of us became suddenly aware that our store rooms were full and that our open orders covered supplies and materials for many months ahead, and we found ourselves, almost before we knew it, in a serious business depresssion when our consumption was very light.

It is probably safe to claim that whatever there may be in the idea of modern purchasing in contrast to some practices in former times began to assume shape about 1921.

Late in 1920 and early in 1921 the importance of "turn overs" was forcibly brought to the attention of many of us at the very time when with big stocks on hand and other goods specified on open purchase orders, that in many instances could not be canceled with honor, it was impossible to get a decent " turn over." When we studied our own situation in 1921 we decided that a " turn over " rate of from three to four times a year on our purchase store room items would be reasonably satisfactory. When, however, we reached that goal in two or three years, conditions were so different that we were far from content. Our efforts to improve the rate of " turn over " in the meantime have been somewhat successful so that at present our average stock on hand in our so-called General Stores or Fabricated Metal Stores' purchase items is turning over slightly better than six times a year. We can probably do still better.

Coal is a good example to illustrate the " turn over " treatment. A few years ago, due to strikes or threatened strikes, car shortages, and weather conditions, many of our industries did not consider it safe to enter the winter period with less than six months supply on hand and a " turn over " rate of from two to three times a year troubled us not at all. The idea was to get well stocked up on coal and then worry about something else. The cost of handling such large stocks and the fact that the mixture of different grades of coal in storage piles frequently resulted in fires were accepted as more or less necessary evils.

Today because of many well know conditions, particularly fast moving freight and high grade coal available at tide water brought in by boat from Hampton Roads, conditions are radically changed and the average

stock on hand in our state probably does not exceed two months requirements. The situation during this year has been particularly favorable for carrying small stocks and at the Main Plant of our own concern we have had an average of a little less than a six weeks' supply. Since May first through July this year, and to date, not a single car has gone into our storage pile nor have we had to pay demurrage. Handling costs, therefore, have been at a minimum in as much as we have scheduled our incoming cars so that they have been unloaded directly into our bunkers. Without the even and rapid movement of this coal on the part of the railroad we could not have made such a record.

Coal is such an important item of purchase for Connecticut that it merits its constant study. In the case of bituminous coal, cost at the mines is low at present and transportation charges are the main item of expense. When low grades of coal are purchased with a high ash content, a large amount of money is paid out for the transportation of many thousand tons of excessive ash each year. Buyers are and should consider this factor as of extreme importance. Then against the rate of consumption of coal varies greatly from season to season and most unfortunately when the demand for coal in the winter months is at the maximum the transportation difficulties are most unfavorable. In contrast, during the months of summer consumption, transportation conditions are well nigh ideal, but requirements are small. One of our industrial leaders some years ago suggested that if Connecticut buyers could plan to work together, it might be possible to fairly evenly distribute the rate of inflow of coal through the months of the year, if arrangements could be made whereby buyers with sufficient financial resources and with adequate storage facilities would bring in their supplies during the months of summer consumption at a sufficiently lower price than would commonly be charged to save them from loss due to the heavier carrying charges. This is a problem that our buyers might well consider and if worked out carefully would likely benefit mine operators, the transportation companies and be no detriment to the interests of the buyers.

Coal is one of the most important items of purchase for Connecticut manufacturers. It demands constant study, and is an excellent example of "turn over" treatment.

The United States Department of Commerce through its division of Simplified Practice which started to function in November, 1920, has led a successful movement to eliminate the production of a great variety of different items that are more or less superfluous and unnecessary. Over one hundred different lines have been studied, such as building materials, hardware, mill supplies, plumbing supplies, containers and many other classes of goods with resulting curtailment in the varieties that had before been produced at rather heavy costs and with small returns. Along with this simplification has come greater interest in standardization in grade and quality of products and a growing development and use of specifications in connection with buying. The Department of Commerce has distributed their information widely among buyers and through buyers' associations and there is a general inclination on the part of buyers to accept as far as they can the recommendations of the Department of Commerce as a result of their various studies.

A striking trend in connection with buying is the growth in size and importance of our Purchasing Agents Associations. The National Association of Purchasing Agents was started in a small way during the war period and has grown greatly and now numbers some 5000 members scattered over the United States and including a few from Canada and Mexico. This association has divided up into small units either by districts or states. In our case the Connecticut Purchasing Agents Association is an active body of some 120 members holding meetings ten times a year and trying to accomplish something. Last year a movement was started largely through the encouragement of one of the directors of the Connecticut Manufacturers Association to bring together at a meeting the Hartford Chapter of Cost Accountants, the Sales Managers of our companies, and the Connecticut Purchasing Agents Association. The first meeting of these groups was held in Hartford in December. As one result of that meeting a State Sales Organization has been formed and beginning this

fall it is hoped that these three associations may have more in common than in the past and may be able to work together to advance the interests of Connecticut industries.

Another trend of modern purchasing, as I see it, is to give better attention to sales representatives when they call. This means more than simply giving them an opportunity to talk with the buyer who may know very little about the article that the visitor is trying to sell but who calls in some experts or responsible individuals from the plant who are likely to be interested. If a sales representative has a story worth telling the modern buyer should arrange so that it would be told to the party or parties chiefly interested in the commodity, who in turn are in a position to ask questions and get more definite and accurate information than the buyer is likely to be able to secure. The day when the right type of salesman is kept waiting for long periods in reception rooms, and then is turned down by some buyer who may not feel like interviewing him, is pretty well gone. Efforts are generally being made to give all sales representatives the same kind of a reception that we would like our own representatives accorded when they call upon our customers or prospective customers.

In conclusion, modern purchasing is more concerned with the quality of goods bought than ever before and in order to insure quality, experts and responsible parties in our plants work closely with the buyers to secure what is best suited for our needs. When goods are finally received they are frequently checked by our laboratories to determine whether they are up to specifications and their use in the plant is followed. Next to quality in modern purchasing the emphasis is placed on service which covers all sorts of conditions, including a reasonable "turn over" rate of purchase items. Price does not assume quite the importance that it used to and not so many attempts are being made to force a seller to furnish his goods at bargain prices. No buyer wants to pay more for the same quantity, quality and service than his competitor but neither does the average buyer today, so frequently attempt to drive the supplier down to a price evidently below the cost of production. As a rule our well operated industries prefer to purchase from sources of supply that are making a reasonable profit on the goods they sell. Profitless concerns usually give poor service.

A striking trend in connection with buying is the growth in size and importance of the national and state purchasing agents associations. Group planning by these organizations has aided both the purchasing agent and the salesman.

A Trip Through the United States Aluminum Plant

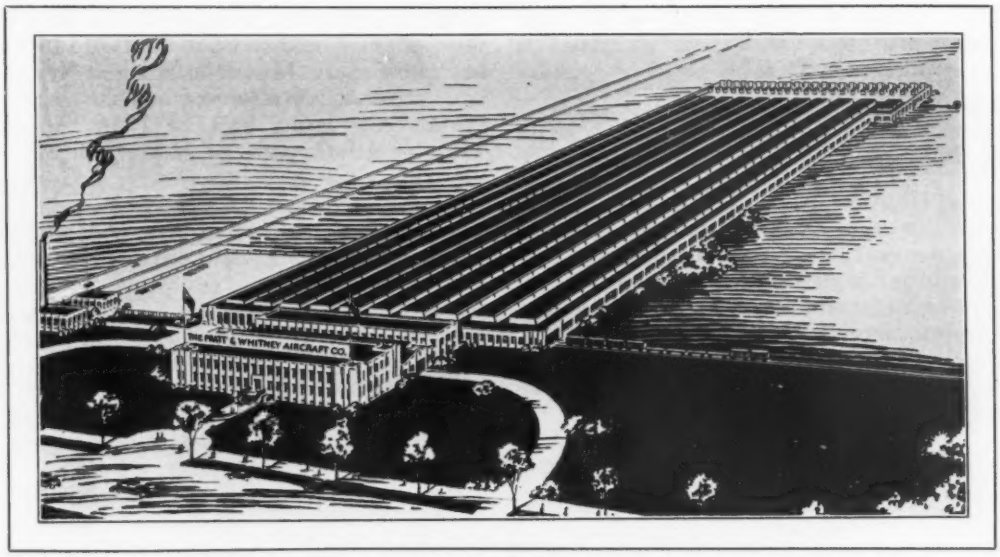
(Continued from page 15)

tion with the heat treating process to give castings the desired physical properties.

In the adjacent room castings were being packed ready for shipment either by railroad through the six rolling doors opening on the private siding or by truck through doors at the end of the room.

Near the east end of the building were the Chemical and Physical Laboratories, and the X-ray Department where a constant check was being made of each heat poured, to insured the soundess of the castings. Accurate card records were made of all tests for each individual heat. These were to be checked later by the technical engineering staff against the original specifications. A few dark spots showing on the X-ray photograph of a Wasp or Hornet cylinder head casting furnished sufficient cause for scrapping the casting.

The excellent facilities provided in the Wash and Locker Rooms adjoining the foundry gave additional mute testimony that the United States Aluminum Company of Fairfield had a happy and contented group of workmen in their employ who were eager not only to do an honest day's work, keep their lockers clean and in order, but also to do their share in keeping the entire factory clean.



Artist's Drawing of the New Pratt & Whitney Aircraft Co. Plant

INDUSTRIAL BRIEFS

Pratt & Whitney Aircraft to Build New Plant

The new $2,000,000 plant of the Pratt & Whitney Aircraft Company, construction of which will start soon in East Hartford, according to officials of the company, will be the most modern and complete aeronautical engine manufacturing unit in the world.

It is expected to be finished and in full operation shortly after the first of the year. The entire unit, made necessary by the universal demand for the famous "Wasp" and "Hornet" aircraft engines will be 400 feet wide, 1500 feet long, and contain a total area of 500,000 square feet. It will consist of a two-story administration building, a personnel building, an engineering building where experimental work will be carried on, a garage, a power-house, and the main manufacturing unit. Construction will be of brick, concrete and steel.

Sufficient land of the 600 acres recently acquired, has been set aside so that the new plant can be increased to five times its original size. The latest Monitor type of factory construction used by General Motors, Henry Ford, and other prominent automobile manufacturers will be employed. A 400-acre airport and flying field will be developed immediately back of the plant after construction is completed. The company will, however, retain its hangar at Brainard Field also. Production of engines will be increased 50 per cent, and plans are being made so that the present production of more than 200 engines a month can be doubled and tripled.

Milford Gets New Plant

The Wright & Corson Company, makers of rivets and automatic rivet-setting machines opened a new factory on the Bridgeport turnpike in Milford during the latter part of July. The company, formerly of Bridgeport, started operations in their new plant with sixty employes.

Colonial Takes Over L. & H. Aircraft

The Colonial Flying Service recently took over the L. & H. Aircraft Corporation which is now being operated at Brainard Field, under its own name as a branch of the Colonial System of Air-schools. Charles B. Beach, President of the L. & H. Aircraft Corporation was retained as manager of the Brainard Field Branch. The merger of

the two concerns means an increase in the facilities for instruction as well as sales and service previously offered by L. & H.

Mannion Hat Co. Loses Building

The factory occupied by the cleaning department of the Mannion Hat Company of Danbury was recently destroyed by fire. The company suffered a heavy loss since many valuable pieces of machinery and other articles of value were ruined, none of which were covered by insurance. Mr. Mannion hopes to build a new cleaning plant in the near future.

Cotton Mills Show Activity

The activity in the New England textile mills during June this year showed an increased consumption of 18,248 bales of cotton over the production for June, 1928, the total for June this year being 117,401 bales as against 99,153 bales for the same period of 1928. A total of 11,348,894 cotton spinning spindles were active in New England mills on June 19, 1929, as compared to 9,571,110 spindles active in the corresponding month of 1928. Although the cotton consumption by the mill for the entire country increased for the eleven-month period ending with June 30, 1929, over the same period of 1928, the consumption by New England mills fell off slightly. The greater portion of the increased consumption of cotton for the country as a whole was due to the unusual activity of the textile mills in the cotton-growing states below the Mason-Dixon Line.

Most Disputes Occur in Three States

More than 50% of all industrial disputes occur in the states of Pennsylvania, Massachusetts and New York, according to a recent survey made by the Bureau of Labor Statistics. Of the 829 industrial disputes in the country for the year 1928, this report would indicate that 415 occurred in Pennsylvania, Massachusetts and New York, and as previously observed in other reports of the Bureau dating back to 1916, April and May were the months of greatest unrest. For the years 1926 to 1928 inclusive, data has only been collected for disputes involving six or more workers, and lasting for one day or more, no distinction being made between strikes and lockouts.

LAST MINUTE FLASHES

Major James F. Hodgson, District Manager of the New York Office of the Department of Commerce is expected to be one of the speakers at the Annual Meeting.

The Hartford Rubber Works is transferring its operations to the main plants of the United States Rubber Co. at Detroit.

Connecticut is favored in Senate Finance Committee Tariff Bill.

Bayliss Mfg. Co., fishing rod manufacturers, move to Hartford.

I. C. C. Decision suspends off-track deliveries by railroads operating on Manhattan Island.

Ball and Roller Bearing Company Leases New Factory

The Ball and Roller Bearing Company of Maple Avenue, Danbury, has recently purchased the lease of H. D. Van Harted, occupant of the entire first floor of the building formerly occupied by the Heim Grinder Company. Negotiations are also under way toward leasing the unoccupied part of the second floor of the same building in order to care for the business of the company which has been growing rapidly since the first of the year.

Mallory Hat Company Buys Loewe Shop

The Mallory Hat Company of Danbury took over the actual deed for the D. E. Loewe Hat Factory on August 1. This factory, which had been occupied by the company earlier in the summer, was organized by Mr. Loewe more than fifty years ago. The plant, operated continuously under his supervision until he retired from its active leadership in 1926, is now being operated as a unit of the Mallory Hat Company. The present capacity of the factory is approximately 300 dozen hats per day.

Cutlery Firm Reorganizes

The Hemming Bros. Company Inc. of New Haven, one of the largest cutlery concerns in the country, has undertaken a complete reorganization, and will

henceforth be known as the Sta-Brite Cutlery Company. Carl H. Hemming was named president; Ralph E. Herman, vice-president, and Edward J. Brennan, Secretary.

Rentschler Heads Export Company

F. B. Rentschler, president of the Pratt & Whitney Aircraft Company of Hartford, and of the United Aircraft and Transport Corporation, a holding company of which the former is a part, was made chairman of the Board of the newly organized Aircraft Exports, Inc., a recently formed subsidiary of the holding company. Francis H. Love of New York, who has had much experience in the export field, is president of the company. The new concern will develop a world-wide organization, selling aeroplanes, engines, and equipmen built by the United group.

International Silver Shows Big Earnings

The International Silver Company reports a net profit over depreciation and provision for Federal taxes, of $383,622 for the quarter ending June 30, 1929. This amounts to $3.05 per share on the outstanding common shares as compared with $1.48 in the 1928 period. A net profit of $4.84 per share on the common was earned in the six months period ending June 30, 1929, as compared with $2.91 last year.

Receiver Appointed for Rhea Company

The affairs of the National Rhea Company of Putnam have been placed in the hands of Louis A. Waterman of Providence who will act as receiver for the concern during the re-organization period. The company which was organized five years ago to manufacture fabrics from Rhea, has for the past year been engaged in making rayon silk. Mr. L. H. Mellor, Superintendent, has announced that orders now on hand will keep the plant busy for many months.

New Hat Company for Danbury

A newly organized hat company, known as the Byron Hat Company, and headed by John Byron McLachlan, son of the president of the McLachlan Hat Company, will soon start operations in Danbury. This concern will manufacture soft and stiff hats of medium grade, to be distributed through the Knox Hat Company's sales organization of New York. The new company is located in the plant recently purchased from the Roger Silver Plate Company of 17 Rowan Street.

An air marker for Windsor atop the P. Lorillard Co. factory

Yale & Towne Buy Holyoke Concern

The Yale & Towne Company of Stamford recently purchased the Steubing & Gowan Company of Holyoke and Cincinnati, makers of handles, trucks and skids. Yale & Town interests now produce electrical lift trucks, tractors, trailers, and locks, having eleven factories in other parts of the world.

Chase Company Acquires Irvine Brass

The Irvine Brass and Copper Company of Minneapolis is the latest acquisition of the Chase Brass & Copper Company of Waterbury. With this concern added to its long list of factories and warehouses throughout the country, the Chase Company now have outlets for their products in practically every section of the United States and Canada. The Irvine Company will serve the Northwest with Chase products in addition to those made in their own factory.

United Aicraft Buys Sikorsky

The United Aircraft Company of which the Pratt & Whitney Aircraft Company is a part, recently

purchased the Sikorsky Aircraft Corporation of Long Island City, N. Y., and Bridgeport, Conn. The acquisition of the Sikorsky Company will add materially to the field work of the Pratt & Whitney Aircraft Company since the famous Sikorsky amphibian planes will be equipped with Pratt & Whitney "Wasp" and "Hornet" engines. The Pratt & Whitney Company have already completed fifty "Wasp" motors for the Sikorsky Company, and have orders for 200 more.

Bridgeport Organizes New Plane Company

Incorporation papers were filed early in August authorizing the formation of a new aircraft company in Bridgeport to be known as the Oleson Aircraft Inc. Mr. Svend Oleson, the first president and founder of the company built the "Connecticut Yankee," the first plane every completely designed and built in Connecticut. According to incorporation papers, stock to the amount of $100,000 will be authorized. The company will build an especially designed low-winged type of sport and training monoplane. The first of these planes which is now being built in a building leased from the former Lake submarine company, will be completed around September 15. Production of two-place aeroplanes will likely start early in 1930.

Hat Companies Merge

The Hodshon Company and F. Berg & Company, both of Norwalk have combined under the firm Hodshon-Berg Inc., according to incorporation papers recently filed at Hartford. The new combine has an authorized capital of $100,000 and will commence business with $360,000.

NOTICE

The R. H. Macy & Co., Inc., of New York are in the market for all types of merchandise which can be successfully sold through department store channels. Manufacturers wishing to contact this market should write to David Birnberg, c/o R. H. Macy & Co., Inc., New York.

Meriden Factory Closes

The Connecticut Electric Company which, during the boom period following the World War, employed 2500 hands, but of late had only 160 on their payroll, closed their plant on August 9 for an indefinite period. Byron A. Fones, of Bridgeport, who was appointed receiver in March, 1928, has been operating the plant ever since. All negotiations for the sale of the company as a going business having fallen through, application is about to be made of the United States District Court for authority to sell the assets of the company at public auction.

Fuller Brush Changes Personnel

Owing to recent changes in the sales policy of the Fuller Brush Company, F. S. Beveridge, sales director, and Clarence Shean, sales manager, have considered it advisable to terminate their services in these positions. Both Mr. Beveridge and Mr. Shean will continue on the board of directors.

National Tax Parley in September

The 22nd Annual Conference of the National Tax Association will be held at Saranac Inn, New York, beginning the week of September 9. Anyone interested in taxation problems is invited to attend and take part in the proceedings.

Many prominent tax specialists are on the program for this year, including William H. Blodgett, Tax Commissioner for the State of Connecticut, Dr. T. S. Adams of Yale University, Governor Roosevelt of New York, and ex-Governor Lowden of Illinois.

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Strand and Sweet to Enlarge

The Polymet Corporation of New York who, a short time ago, took over the Strand and Sweet plant, announced plans for the construction of a new two-story building which will add nearly 50% to the present floor space. Shortly after January 1 the Strand and Sweet organization will have tripled the output since becoming a subsidiary of the Polymet Corporation.

Silex Company's Business Growing

The Silex Company of No. 1 Laurel Street, Hartford, manufacturers of a glass product for making coffee, are extremely busy these days in meeting the demands of the domestic market which up until now has scarcely been scratched. Their product, which is designed to make coffee in the most scientific way, employs two conecting glass containers and a heater. It has been particularly popular in private clubs, exclusive hotels and is now being used extensively by chain drug stores and sandwich shops. Among the larger organizations using the Silex product is the Whalen Drug Company, The B. & G. Sandwich Shops on the Pacific Coast, and The Huyler Stores.

Metallurgy Course Closes

The Association's course in practical metallurgy began on March 4, 1929, and continued every Monday evening from 7:30 to 9:30 for seventeen weeks, under the instruction of E. L. Wood, Chief Metallurgist of Landers, Frary and Clark. The final session was held in the afternoon of June 26 in the heat treating laboratory of the New Departure Manufacturing Company, at Bristol.

Thirteen men enrolled in the course, the majority of whom paid their own tuition. They represented the following companies: Union Hardware Manufacturing Company, Torrington; Hendey Machine Company, Torrington; Horton Manufacturing Company, Bristol; Fafnir Ball Bearing Company, New Britain; Pratt & Whitney Aircraft Company, Hartford; Poldi Steel Corporation of America; Taylor & Fenn Company, Hartford; Clayton Manufacturing Company, Bristol; and Landers, Frary and Clerk, New Britain.

The average attendance during the course was 77 per cent, which was considered a very good attendance in view of the hot weather and the inconvenience experienced by many of the students in attending the sessions. Two reels of film loaned by the Bureau of Mines, and shown at one of the latter sessions, graphically presented many of the points brought out in the text and lectures.

After the last session, the executives of each of the men enrolled were informed of the accomplishments of their employes. Several have replied to the effect that they are proud of these men and that personal interviews have been given them for the purpose of congratulation and encouragement.

Mr. Wood, the instructor, reported that each of the men showed a lively interest in the course, and apparently carried away worthwhile information which will be especially valuable to them in their everyday work and future advancement.

Petroleum Heat and Power Company Holds Convention

The Annual International Convention of the Petroleum Heat and Power Company was held at Stamford August 12, 13 and 14. Both Petro and Nokol divisions were present at this gathering, the Nokolites meeting August 12 and 13 and the Petrolygists meeting August 13 and 14. On Friday, August 13, when both divisions were present, over 400 people were assembled for a joint program.

With the acquisition of this new plant in Stamford, the Petroleum Heat and Power organization now possesses unsurpassed facilities for manufacturing oil burners. It now has two plants in Stamford, one in Chicago and one in San Francisco.

The most ambitious advertising campaign ever undertaken by an oil burner company was launched by the company beginning with the Saturday Evening Post of August 24, and will continue well into 1930.

A new line of industrial burner called the "New Fess" was announced at the meeting. This type employs the traditional petro air-driven cup, can use several grades of oil and is built in various sizes which make it adaptable for small apartment houses as well as the largest buildings.

Another feature of the program was the educational facilities provided, which consisted of a battery of boilers of all types, aggregating 1750 H. P. Most of the instruction was done here so that installation and service men would be thoroughly familiar with the best procedure.

The speakers were Morgan J. Hammers, vice president; Harvey C. Dever, vice president; W. C. McTarnahan, president, who spoke over the radio-phone from Europe; and Lawrence L. Smith, general sales manager.

Foreign Trade Committee Meets

One of the Association's most recently organized major committees, charged with the task of increasing foreign trade in Connecticut to offset the growing disadvantages which Connecticut manufacturers are encountering in the domestic market, met on August 16 to consider the ways and means of accomplishing its task.

This group of specialists, headed by Mr. Frank C. Nichols, Vice President of Colt's Patent Fire Arms Mfg. Co. of Hartford, is eminently fitted for this work by reason of the experience, ability and enviable reputation of each of its members in the world of export. Chairman Nichols has associated with him on the foreign trade committee Messrs. H. F. Beebe, Foreign Department Manager of the Winchester Repeating Arms Co. of New Haven; J. E. Bryan, Treasurer and General Manager of the Undine Twine Mills of Moodus; H. W. French, Export Manager of the Bridgeport Hardware Mfg. Corp. of Bridgeport; E. H. Long, Export Manager of the Seamless Rubber Co. of New Haven; R. H. Miller, Export Manager of the Turner & Seymour Mfg. Co. of Torrington; Anthony Ribadeneyra, Export Manager of the Bridgeport Screw Co. of Bridgeport and A. Schoonmaker, Export Manager of the Bourne-Fuller Co. of Unionville.

At its organization meeting on Februarv 20, 1929, the committee ordered a survey of the entire membership of the Association to determine first of all, to what extent Connecticut manufacturers are now engaged in exporting, and, if possible, the reasons for which those manufacturers who are not exporting have refrained from exerting any serious sales effort in the foreign market.

Status of Foreign Trade Shown in Survey

The status of foreign trade among Connecticut manufacturers was revealed for the first time in this survey. Besides being the first fact-finding survey of its kind ever attempted in Connecticut, it is also thought to be the only one of this nature ever completed in any one of the 48 states. The facts revealed not only serve as an adequate "measuring-stick" of past export trade, but also stand as guide-posts charting the way for future efforts in this direction.

Class I, which includes manufacturers actively exporting, comprises 46% of the total; Class II, manufacturers not exporting, 41%; and Class III, manufacturers not responding to the questionnaire, 13%.

Of the manufacturers who are actively exporting 58% maintain their own export department, 55% of which are located at their factories, 42% in New York, and the remaining 3% elsewhere. 44% of those exporting have their own export managers.

The methods employed for securing business in foreign markets were through commission agents 63%, agents on own accounts 37%, traveling representatives 22%, exclusive distributors 37%, combination export houses 21%, direct-by-mail 52%, and advertising 36%.

There were 43% of the manufacturers interested in developing trade in Europe, 19% in Levant, 30% in India, 33% in Africa, 35% in Far East, 24% in Near East, 46% in Canada, 64% in Latin America and 43% in Australasia. There are 60% of all manufacturers exporting from Connecticut who now list countries where they are satisfactorily represented. Sixteen is the average number of countries where the representation is considered adequate. 21% of this exporting group wish to receive trade inquiries from all countries and 8% desire to receive purchase order inquiries only. 10% of those exporting maintain their own branch plants in foreign countries.

There are now 61% of the manufacturers engaged in foreign trade who are registered on the Exporters' Index and receive the bulletins from the Bureau of Foreign and Domestic Commerce. 21% subscribe to Commerce Reports, and 26% wish to be registered on the Exporters' Index.

Class II or the 41% of the manufacturers who have not yet entered the export market are divided into several groups according to their reasons for not exporting. The nature of their products accounts for the largest or 34% of this group, miscellaneous reasons for 20%, foreign competition 15%, unfamiliarity with foreign potential market 8%, unfamiliarity with foreign sales procedure 6%, expense of operating export department 5%, and those without any fixed reasons, 12%. Of this non-exporting class 12% indicated the desire to enter the following foreign markets: Europe 4.6%, Levant .7%, India .7%, Africa .4%, Far East .7%, Near East .4%, Canada 9.2%, Latin America 6.9%, and Australasia 4.2%. Another 18% desired to receive trade inquiries and 10% wish to be registered on the Exporters' Index. Only 3% of this group maintain foreign branch plants.

Survey Reveals

46%

of Connecticut Manufacturers Actively Exporting

Latin America is by far the most popular market with Connecticut manufacturers, Canada running a close second, Europe third, Australasia fourth, Far East fifth, Africa sixth, India seventh, Near East eighth, and Levant the least desirable export field.

In a future issue of *Connecticut Industry* an interpretative article will appear under the heading "What is the Foreign Trade Situation in Connecticut," by F. C. Nichols, Chairman of the Foreign Trade Committee, based on this survey.

Lays Plans for Annual Meeting

In view of the fact that the keynote of the 1929 Annual Meeting of the Association is to be foreign trade, the committee undertook to suggest plans whereby this feature of the Annual Meeting might prove most interesting and at the same time practical. Realizing that the presidents and officers who usually serve as delegates of their companies at the Annual Meeting would not be primarily interested in securing specific information and practical advice as to how to overcome the problems they may be encountering in the foreign market, the committee recommended that the association not only invite the officers of its members to attend, but urge them to bring with them their sales managers in order that the latter may attend any one of the consultation conferences on the various phases of exporting which the committee proposes to set up in collaboration with officials of the Department of Commerce.

Foreign Group Advertising

After considering the result of the Association's first venture in the field of advertising, undertaken last January as a means of developing foreign trade in Connecticut, the committee went on record as recommending to the Association that this profitable type of investment for members continue to be one of the regular functions of the Association in its service to members. The number of foreign trade inquiries received in reply to the full-page advertisement inserted in the Spanish edition of the American Exporter last January was 42; the number resulting from the Portuguese was 12, while the number of inquiries originating in English speaking countries resulting directly from this advertisement was 53, a total of 107 different inquiries. While no record was kept of the total number of members to which these inquiries were referred, 398 members advised the Association that definite action was being taken on one or more of the inquiries. An average of four members was interested in each of the 107 inquiries, while 30 different manufacturers indicated their intention of taking definite action on one inquiry alone. Although the survey made by the foreign trade committee revealed but 289 members interested in exporting, 398, almost a hundred more, indicated their intention of communicating either directly or indirectly with the foreign merchants and agents in 35 different countries who replied to the advertisement.

1929 Commerce Yearbook

As a source of facts and figures bearing on our commerce and industry, the Commerce Yearbook is unexcelled, and may be quoted with an assurance of correctness. Manufacturers, business men, bankers, economists, and students will find it invaluable as a ready source of reference.

Copies may be obtained for $1.00 from the Association office at 50 Lewis Street.

New Activities in Traffic Instruction

ARRANGEMENTS have been completed with the educational departments of local Y. M. C. A.'s in seven cities, whereby it will be possible for each of the industrial employes who has completed the elementary sections of the traffic management course, sponsored by the association, to continue his studies in the more advanced and technical phases of the profession for the purpose of increasing his ability to perform his daily duties more effectively for his employer.

Three hundred seven men and women throughout the state, having successfully completed one or more of the elementary sections of the course, have been granted certificates of proficiency by the association in the forms of letters of recommendation signed by the members of the traffic committee. The course consists of three sections of sixteen lessons each, classes being held one evening each week under the instruction of a group of the most expert traffic managers in the state. The first, or elementary section of the course, has to do with the fundamentals of the profession, including a study of freight classification, rule interpretation, shipping papers, movement of freight, correct weights and weighing, drayage, storage, demurrage, lighterage, switching, diversion and reconsignment. The second section known as Traffic Management II is a study of the more advanced phases of traffic management, including an analysis of the existing freight rate structure and training in the interpretation of freight tariffs. Traffic Management III, the final section, is in reality a course in elementary transportation law having to do with Interstate Commerce Commission conference rulings. While these rulings are no longer in force, a thorough acquaintance with them is considered essential to the technical knowledge of a well trained traffic manager. The third section also has to do with express and parcel post shipments.

It will be recalled by those familiar with this branch of the Association's functions that the establishment of these courses originated from a desire on the part of the traffic committee to disseminate among the industries of Connecticut, a more thorough knowledge of this intricate phase of industrial management in an effort to stop the many leaks and wastes in transportation costs that had come to the committee's attention from time to time in assembling data for the prosecution of rate cases before the Interstate Commerce Commission and other regulatory bodies.

In Waterbury, the only city where classes in all three sections in the course have already been completed, it is proposed to organize classes in Traffic Management II and Traffic Management III for the benefit of those who have not completed all three sections, while in New Haven, two classes equally advanced will combine to study Traffic Management III. New Britain proposes to offer both Traffic Management II and III, while those who have completed the elementary section of the class in Stamford expect to continue with the study of freight rates and the interpretation of tariffs. Bridgeport, the pioneer city in this activity, is on a par with New Britain in that its students are now prepared to continue with sections II and III, while the class in New London, made up of students from New London, Norwich, Mystic, Groton and vicinity, is to be urged to take advantage of the opportunity offered to them to study the second section which is said to be the dividing line between the shipping or receiving clerk and the traffic manager.

Mr. R. A. Benoit. Traffic Manager of the Acme Wire Company in New Haven, has again volunteered to travel one night each week to New London for the purpose of instructing students in the eastern part of the state, in addition to his duties as one of the instructors in the New Haven course. Mr.

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Telephone 2-9607 Hartford, Connecticut

Savannah Line

INCREASED SERVICE

To meet the demand of popularity, it is our pleasure to announce an additional weekly sailing between New York, N. Y., and Savannah, Ga. Our sailings are now:

From
NEW YORK TO SAVANNAH
Every Monday, Wednesday, Thursday and Saturday

From
SAVANNAH TO NEW YORK
Every Monday, Wednesday, Friday and Sunday

From
BOSTON TO SAVANNAH
Every Tuesday, Thursday and Saturday

From
SAVANNAH TO BOSTON
Every Monday, Wednesday and Friday

FREIGHT

Differential rates apply between the East and points in the South, Southwest and West. Package cars operated to and from Savannah and freight transferred direct between cars and ship thereby insuring prompt and efficient handling.

PASSENGER

Delightful all-expense cruises Boston and New York to Savannah, Tybee Beach and Sea Island Beach — from Boston 9 to 14 days — $85.00 to $130.00. From New York — 7 to 12 days — $72.00 to $117.00. Cruise fares include meals and stateroom accommodations aboard ship, hotel accommodation (American Plan) sightseeing trips and transfers. DeLuxe accommodations at reasonable additional charges. Through tickets to Florida and other Southern Points.

OCEAN STEAMSHIP COMPANY OF SAVANNAH

Pier 42, Hoosac Tunnel Docks — Boston, Mass. **New Pier 46 North River — New York, N. Y.**

Charles G. Phillips, a member of the traffic committee, and traffic manager of the National Folding Box Company will continue to supervise the instruction in New Haven, assisted by Mr. Benoit and Mr. N. W. Ford of the Winchester Repeating Arms Company. Mr. Pease, Chairman of the traffic committee, will again direct the instruction in Bridgeport, having associated with him as instructors, Messrs. Benzie, Sanford, and Miller of the General Electric Company, Harvey Hubbell, Inc., and Crane Company respectively, the latter being a member of the traffic committee. Mr. O. R. Peterson, formerly chief instructor in Hartford, who has recently accepted a position as Traffic Manager with The Bay Company in Bridgeport, has been asked to lend his services this year in the capacity of instructor to a class in the elementary section of the course in Norwalk.

In Stamford, Mr. H. W. Browne, who taught the elementary section in his city, will probably be succeeded as chief instructor by Mr. P. Banks, a rate expert in the employ of the New Haven Railroad. Messrs. J. B. Griffin and F. A. Brown of the Traffic Department of the Scovill Manufacturing Company will divide the instruction in the Waterbury classes with Mr. F. H. Vickery, Assistant Traffic Manager of the Chase Companies. Mr. A. H. Petts of the American Hardware Corporation has volunteered to teach this years' classes in New Britain, with the probable assistance of Mr. F. H. Ramsdell formerly with the Stanley Works and now Traffic Manager of the New Departure Manufacturing Company in Bristol. Mr. W. J. Corry, of the Hartford and New York Transportation Company will succeed Mr. O. R. Peterson as instructor in Hartford.

COLUMBUS 4660-4665

CITY CORRUGATED PAPER PRODUCTS CO. INC.

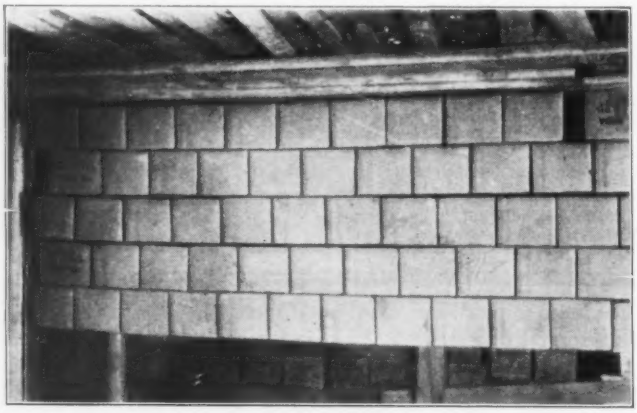
"The box that lasts longest"

622-640 WEST 57TH STREET
NEW YORK CITY

OUR REPRESENTATIVE IS WITHIN DAILY CALL OF YOUR OFFICE

Intercoastal Lines Split Deliveries

In the Intercoastal Lines I. L. S. Split Delivery Case D. C. U. S. Shipping Board Docket No. 45, the complainant has attacked the practices of certain Intercoastal Lines for according the same rate to car-loads from Atlantic ports which are split-delivered in segments between two to six Pacific Coast ports, as are given to car-load shipments delivered solid to one port. It was alleged that the complainant's principals were subject to prejudices and unreasonable preference in violation of Section 16 of U. S. Shipping Act of 1916, depending entirely upon whether they receive solid car-loads at one port, or split deliveries at several ports.



The above view shows "brick work" method of perfect stowage aboard American-Hawaiian steamer Kentuckian. This method prevents leakage caused by spreading seams in cans of liquids, and is one reason why American-Hawaiian damages in 1928 were only 88/100 of 1% of the freight revenue.

A tentative report of the Bureau of Regulations of the U. S. Shipping Board recommends that the practice of delivering solid car-loads in segments or split deliveries at two or more ports at the same rate as to one port, should be found to constitute undue and unreasonable preference, and undue and unreasonable prejudice in violation of Paragraph I, Section 16 of the Shipping Act.

I. C. C. Authorizes Boat Line Transfer

The I. C. C. recently authorized the New York, New Haven & Hartford Railroad to transfer the operation of steamboat lines between New York City and Connecticut River landings from the Hartford & New York Transportation Company to the New England Steamship Company.

This decision should be especially gratifying to the officials of the New Haven Road and the New England Steamship Company, and to shippers along the river route, since it marks the culmination of their efforts towards this accomplishment by means of personal representation before the Commission by an executive of the Hartford Chamber of Commerce and the Manufacturers Association of Connecticut. It is not proposed to organize any new service by water, but merely to operate the existing service through one subsidiary instead of two. The present line is now called the Hartford Line of the New England Steamship Company.

Report of Rate Investigation to be Issued

The proposed report of the Interstate Commerce Commission examiners in Part II of its Rate Structure Investigation, Docket No. 17,000 covering a re-adjustment of class rates in Western and Trunk Line territory is now being printed, and should be available by the middle of September.

In accordance with the Commission's practice, one copy will be served upon each line

named in the various lists. Because of the broad scope of the proceedings, It is anticipated that there will be an unusual demand for copies of this report. Since the Commission's supply for free distribution is limited, arrangements have been made to have additional copies available for sale, on application to the Superintendent of Documents. The price will not be in excess of 25¢ per copy, and in lots of 100, will be considerably less. Orders for copies or inquiries on large lots, should be addressed directly to the Superintendent of Documents, Government Printing Office, Washington, D. C., and payments made to him.

Consular Fees

Consular fees at the rate of 2% ad valorum are now being required from all exporters of merchandise to Guatemala according to a recent announcement by the Guatemalan consul at San Francisco. Bills of lading and invoices must be legalized in the usual form, and the 2% fee shall be the only one collected. This charge is for the legalization of invoices covering merchandise shipped by freight or parcel post.

Joint Water and Rail Rates Delayed

The Interstate Commerce Commission on August 1st announced the modification of the Commission's order of April 8, 1929, relative to the effective date for establishment of the through routes and joint rates prescribed between Inland Waterways Corporation and other common carriers.

The previous requirement that the through routes and joint rates be prescribed on or before August 27, 1929, is modified to permit the establishment of said through routes or joint rates on or before November 25, 1929.

Holiday Demurrage in Storage Charges

The Association's Traffic Department has on file a completely revised list of holidays, both national and state, which should be of interest from the standpoint of assessing demurrage and storage charges. In some instances this list does not give the exact date of the holiday, since this is determined each year by the state or local authorities. This list supersedes all other lists and is revised as of August 10, 1929. Members wishing any information on these holidays should write or call the Association office.

Overcharge Claims

The decision recently rendered by the Commission in the case of the Armstrong Cork and Installation Company vs. Mississippi Boiler Service et al — 153 I. C. C. 781 — states that carriers must pay interest on overcharge claims, and that if the carriers do not promptly refund charges due, claimant should insist on payment of interest on all overcharge claims. The interest on overcharge claims is now collectible for the first thirty days.

Air Express Plan

Transportation interests in the Curtiss Wright Corporation and other aeronautical organizations of the United States, along with railroad express executives, are considering the formation of a country-wide aviation express company, having the same relation to the nation's business as the American Railway Express Company bears to the railroads of the United States.

The proposed company, when finally in operation will not only handle express business arising out of the operation of transport companies, but will include all the principal aviation companies on the basis of stock participation, and be closely allied with railroads and railway express interests. The success of the plan is said to depend on participation by the American Railway Express agency, insuring contact and co-operation with the railroads.

West Opposes Container Cars

Western trunk line railroads are opposed to the container car in the unit of railroad freight service according to a brief filed with the Interstate Commerce Commission, asking that the Commission hold the container service, and charges for transporting steel containers loaded on open-top equipment, to be unlawful as violating the Interstate Commerce Act. The railroads taking such a position include the St. Paul; Minneapolis & St. Louis; Soo Line; Burlington; Union Pacific; Wabash, Chicago & Alton; Sante Fe; Ill. Central & Chicago & Northwestern. These carriers claim that the rates under the Missouri Pacific Container Schedule as proposed to be effective between St. Louis, Mo., and Western and Southwestern points are designed to attract freight from merchandise cars, and are made on unsound principles. They also claim that there is no demand for the extension of container service either in the West or East.

The brief submitted by the Missouri-Pacific

Railroad and the International-Great Northern defend the former's proposal to institute container service, asserting that proposed schedules which are assessable, pending the inquiry, are lawful, non-discriminatory, and within the requirements of the Interstate Act in all particulars.

The Lehigh Valley Railroad which now operates container service over New York routes, also defends the container service, although in favoring the service it does not advocate a rate structure which will have an effect of generally breaking down car-load rates.

A brief on behalf of the Boston & Maine; Delaware, Lackawanna & Western, Erie, and the New York, New Haven & Hartford, opposes the container service, denying that it results in a reduction of operating costs, and alleging that the proposed rates of the Lehigh Valley, Pennsylvania and Missouri Pacific container tariffs are unlawful.

Dollar Line Offers New Service

Dollar Line inaugurates a new service from New York to Los Angeles, San Francisco, Honolulu, Manila, and Hong Kong on the Steamer President Hayes, leaving New York on August 10 and arriving in San Francisco on September 3. All cargo for Northern Pacific ports is to be transshipped at San Franscisco.

Hearing on Extra Fare

What is believed will amount to a general inquiry by the Commission on the practice of eastern railroads in charging extra fare for the transportation of passengers on desirable trains, will begin on October 15 when Examiner M. L. Boat will begin a hearing on the fourth section, Application No. 13871, filed by C. A. Fox and C. M. Burt, passenger tariff publishing agents for eastern lines. The application asks for relief from the intermediate fares provision of the fourth section of the Interstate Commerce Commission. Even the oldest employes of the Commission claim that there has never been a fourth section application in respect to passenger fares, at least in the eastern part of the country on account of conditions created by extra fares. Although a minute search of the Commission's records might disclose such an application, there has been no action taken in this direction.

This hearing will place in jeopardy, revenues aggregating nine million dollars a year, which means, that if relief is not accorded, and the railroads do not and cannot bring the combination of the locals to the level of the through fares, now in excess of the locals, this estimated amount of revenue will be given up on account of the prohibition of the fourth section.

It is claimed that the extra fare idea originated about thirty-two years ago, when trains between New York and Chicago began making the run in less than 28 hours. For each hour or fraction, saved, the two big lines between these points began charging an extra fare of about $1.20 per hour, or fraction saved. Now practically every train makes the run in less than 28 hours so that what was once the exception has now become the rule.

New Haven Announces Extra Train

The New Haven Railroad management has recently announced a plan for a new limited, extra-fare train on the fastest schedule ever to be in effect between Boston and New York. This train will be put in operation as soon as the special equipment being built for this service by the Pullman Company is completed. The running time between the two cities, via the shore route, will be less than five hours.

Dollar to Organize New Corporation

A recent announcement made by R. Stanley Dollar indicates that a $100,000,000 steamship corporation to be called The Dollar Lines Ltd., Inc., is now in process of organization. The Dollar Line now operates a fort-nightly, round-the-world service, stopping at twenty-one points in fifteen countries.

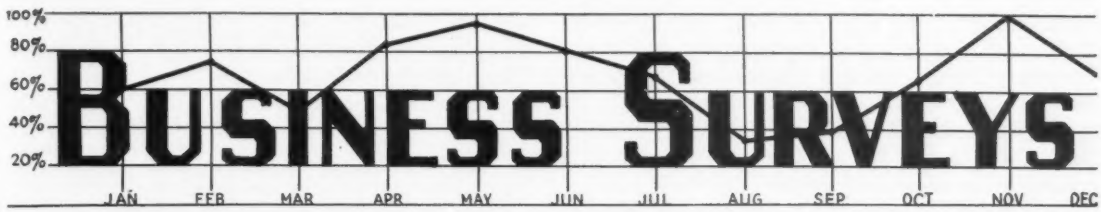
FT SERVICE

FLETCHER-THOMPSON, INC.

ENGINEERS *ARCHITECTS*

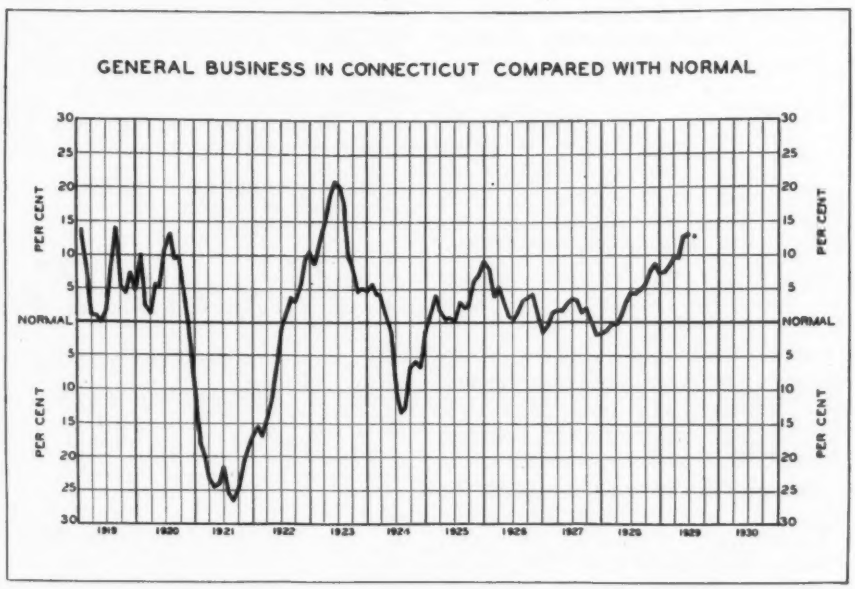
BRIDGEPORT, CONN.
NEWARK, N. J.

SPECIALISTS IN INDUSTRIAL PLANT DESIGN FOR 20 YEARS



General Summary

General business in Connecticut during July, as is shown on the chart below, was maintained at the high pitch of May and June and the average for these three months was the highest for any three months' period since the middle of 1923. Industrial activity in Connecticut, as represented by the number of man-hours worked in Connecticut factories, advanced to 7% above normal, a point which has not been reached since March, 1926. Employment in Bridgeport non-ferrous metal concerns also increased, and metal tonnage carried by the New Haven Road advanced sharply for the second consecutive month. On the other hand, there was a further sharp decrease in cotton mill activity while originating car-loadings and bank debits to individual accounts in Connecticut cities declined more than was seasonally expected. On August 1st, Hartford and its vicinity experienced a severe hail storm which, in some places, totally destroyed the tobacco crop; the loss was estimated at close to $2,000,000.



July business activity in the United States was also approximately the same as in June. Automobile production held up well and industrial output, with few exceptions, showed only seasonal changes from June. One of the significant events of the month was the fact that steel ingot production in the United States after being maintained at record levels during the first six months of this year fell off more than usual in July. Reports for the first half of August indicate a further slight curtailment, whereas August normally witnesses the beginning of the Autumn expansion. This falling off is significant inasumch as steel ingot production is a recognized barometer of activity in other lines of business, and turning points in the activity of steel mills usually precede those in business generally by a few months.

Banking and Finance

The number and net liabilities of failures in Connecticut during the four weeks ended August 10th fell off substantially both from the preceding four week period and from the cor-

responding period a year earlier. On the other hand, the number of new corporations formed declined slightly from a year ago while the authorized capitalization showed a large increase.

Real estate sales advanced 9% when compared with last year while the value of mortgaged loans decreased 28%.

July life insurance business continued active and in Connecticut, sales of new ordinary life insurance were 12% greater than in July, 1928.

Construction

According to reports of the F. W. Dodge Corporation a sharp recovery took place in the construction industry during July. The value of building contracts awarded in Connecticut increased 46% over July, 1928, to the highest July total on record. Exceptionally large contracts were awarded during the month in the industrial, residential, and educational classifications. Building contracts awarded in the rest of New England increased 7% over a year ago while contracts awarded in the United States as a whole increased 12%.

Labor and Industry

During July, the average rate of industrial activity in Connecticut, as indicated by data received from manufacturing associations throughout the State, fell off less than seasonally from June. Conditions were somewhat mixed but with the main tendency upwards. Bridgeport and New Britain factories reported an expansion in activity while factories in Meriden and the Naugatuck Valley showed little change from the preceding month. Concerns in Bristol, Hartford, and New Haven reported seasonal contractions in the number of man-hour worked. Compared with July, 1928, New Haven was the only city in which factories were less active this year. Employment in non-ferrous metal concerns in both Waterbury and Bridgeport was maintained at peak levels. Reports from Danbury indicated that activity in hat factories was near capacity.

At seven free public employment bureaus during the four weeks ended August 15th, 64% of the applicants for employment were placed compared with 62% in the corresponding period a year earlier. Skilled help continued in demand.

Employment in the United States in July was the highest for any July since 1923. Compared with June, increases in employment occurred in electrical machinery, petroleum refining, and machine tools, while decreases took place in agricultural implements, and brass, bronze and copper products.

Trade

Retail trade in July was poor in volume and reports now available show that sales were not up to the volume of a year ago. Orders for new goods were medium in size. Stocks of goods on hand were conservative. Collections were fair.

Transportation

During the four weeks ended August 10th, originating car-loadings at fourteen Connecticut cities increased 2% when compared with the corresponding period a year ago. In the same period, loadings on the entire New Haven Road showed no change from last year while loadings in the United States advanced 5%. July car-loadings of grain, food products, automobiles, wool, iron and steel, and copper were considerably heavier than last year. On the other hand, car-loadings of building materials continued to fall below a year ago. The number of surplus freight cars on hand on the New Haven Road and in the United States appeared sufficient to take care of all demands.

Foreign Trade

is the Keynote of the

ASSOCIATION'S
ANNUAL MEETING

—on—

October Nine

Reserve this date in your appointment book

Meeting place announced later by special bulletin

"How's this?" asked the lawyer. "You've named six bankers in your will to be pallbearers. Of course, it's all right, but wouldn't you rather choose some friends with whom you are on better terms?"

"No, that's all right. Those fellows have carried me so long that they might as well finish the job."

A colored agent was summoned before the insurance commissioner.

"Don't you know," said the commissioner, "that you can't sell life insurance without a state license?"

"Boss," said the darky, "you suah said a mouthful. I knowed I couldn't sell it, but Ah didn't know the reason."

Lord Ebbisham tells that "It is said that Mussolini was present at some function with the King of Italy, and some time along the king dropped his handkerchief. Mussolini stooped quickly and returned it, for which the king expressed his thanks profusely, almost pointedly.

"Some one later asked him why he was so glad to get his handkerchief back. 'I was delighted. You see, it is the only thing left that I am allowed to put my nose into'."

In a certain newspaper office there was a very clever cartoonist who had a tiff with the owner. Some days later there appeared a biting caricature of the latter, and naturally he just about blew up. Calling the artist, he bellowed: "See here; are you responsible for this?"

"Not at all," was the bland reply. "Your parents are."

Mrs. Prim — I didn't see your husband in church this morning.

Mrs. Glim — No, he doesn't dare go now.

Mrs. Prim (shocked) — Doesn't dare go? Why?

Mrs. Glim — Last Sunday the pastor prayed for the loose livers of the parish. After the service my husband asked him if he wouldn't slip in just a few words about his floating kidney — and the minister threw a hymn book at him.

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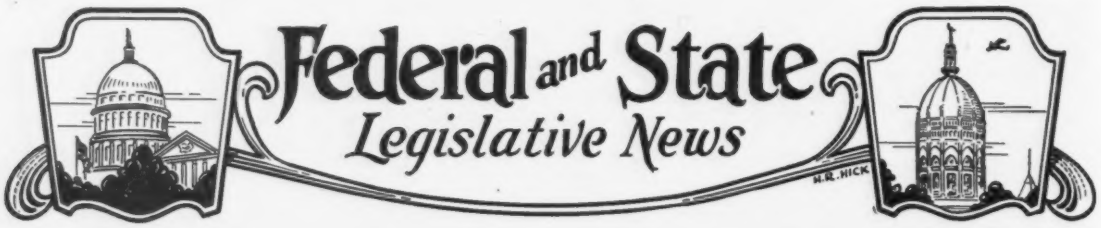

According to the latest Washington reports, vacancies about to occur in the Court of Claims have been settled but not announced. The belief is held by many administration leaders that one member of the Board of Tax Appeals will be elevated to the Court of Claims bench to assist in cleaning up the Court's crowded tax docket. In all probability, nominees to fill the Court of Claims vacancies will be presented to the Senate during the present session, which opened on August 19.

Certain trade groups are developing plans to bring about a lowering of the corporation tax rate to 10%. These plans, it is believed, will be pushed during the next session of Congress in December despite the wishes of several congressional leaders who desire to put a stop to further tampering with taxes for some time to come. The Treasury is opposed to tax reduction until they have made certain that this year's surplus was not a direct result of stock increases, which may not occur in succeeding years. It is rumored that the Treasury also opposes the plan of diverting debt reduction payments into the pockets of corporation taxpayers. At best, talk about tax reduction this year seems to observers more like a political "barrage" for votes in view of the coming congressional election in 1930. However, President Hoover may be expected to advocate a reduction in taxes as soon as he can see room for it after making certain of a sufficient income to carry out administration programs. If the present Hoover moves for World Peace are successful, tax reductions may be expected to follow in view of a curtailment of Army and Navy expenditures.

The sliding scale proposal made by Senator Smoot has taken on the aspect of the "Off again, on again, Finnegan" episode. This scale of duties, which supporters of the bill claimed would stabilize sugar prices, was greatly favored during the latter part of July, but now the pendulum has swung to a flat .44¢ increase on raw sugar, or approaching what was originally advocated by the farm group.

Manganese ore has been put on the free list by the Senate Finance Committee since after seven years of operation under the tariff, steel manufacturers claim they are still importing 95% of their manganese supplies. This condition would indicate that domestic producers had not taken advantage of the tariff protection to increase their production, and that the $46,000,000 paid on ore and manganese alloys in the past seven years might well have accrued to the debit side of the steel manufacturers' ledgers.

The Connecticut General Assembly convened in special session on August 6, to meet the emergency created by the decision of the Supreme Court of Errors in the McCook case. This decision cast doubt on the validity of some 1500 public and special acts, passed by various sessions of the General Assembly, but signed by the then governor later than three days after final adjournment of the session. The special session passed only validating acts and resolutions incident to the re-organization of the Assembly. It adjourned late in the day, after Governor Trumbull had affixed his signature to the engrossed copies.

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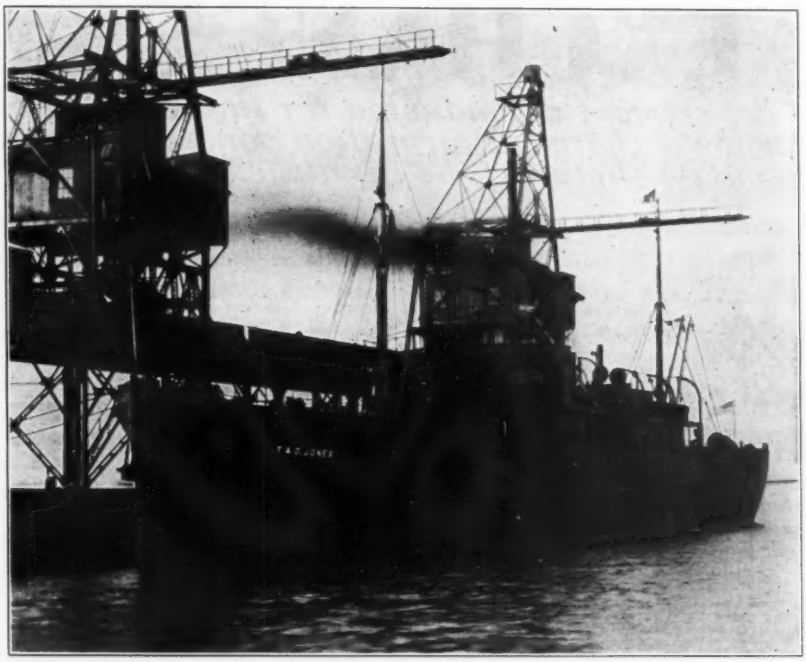

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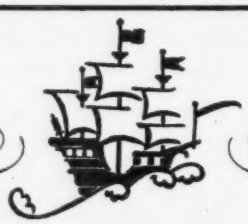

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